



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,420	08/30/2001	Ren Da	Da 9-12	7422

7590 12/27/2004

Docket Administrator (Room 3J-219)
Lucent Technologies Inc
101 Crawfords Corner Road
Holmdel, NJ 07733-3030

EXAMINER

LEE, JOHN J

ART UNIT PAPER NUMBER

2684

DATE MAILED: 12/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/942,420

Applicant(s)

DA ET AL.

Examiner

JOHN J LEE

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments with respect to claims 1 – 16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1 – 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp, Jr. (US Patent number 6,084,544) in view of Stein et al. (US 2003/0008669).

Regarding **claims 1 and 3**, Camp discloses that a method of performing integrity monitoring (Fig. 1 and abstract). Camp teaches that selecting at least one ranging measurement associated with a first ranging source belonging to a first ranging source type (Fig. 1, abstract, and column 2, lines 61 – column 3, lines 6, where teaches selecting a trail time for use in calculating a presumed location of the receiver using at least four satellites). Camp teaches that selecting at least one ranging measurement associated with a second ranging source belonging to a second ranging source type (Fig. 1, abstract, and column 5, lines 11 – 64, where teaches a second range from the presumed location to the fifth satellite is measured). Camp teaches that performing failure detection (unequal) using the selected ranging measurements (first and second) associated with the first and second ranging sources to determine whether either of the first or second ranging sources failed (Fig. 1, abstract, and column 2, lines 61 – column 3, lines 6, where teaches a

comparison is then made between the first range to the second range and if the first range is unequal (means first or second ranging sources failed (delay, noise, or signal quality) to the second range the presumed location is not actual location and then a new trail time is selected). Camp does not exactly disclose the limitation “performing failure detection using the selected ranging measurements associated with the first and second ranging sources to determine whether either of the first or second ranging sources failed”.

However, Stein discloses the limitation “performing failure detection using the selected ranging measurements associated with the first and second ranging sources to determine whether either of the first or second ranging sources failed” (pages 10, paragraphs 119 – pages 11, paragraphs 30 and Fig. 1, 6, where teaches there are two ranging measurement sources which are repeaters (satellites) and neighbor base stations for determining the position of a terminal, and measuring the location information from the repeaters and location information from the neighbor base stations and comparing with them and then determining the location, however, if fails obtaining the measurement from the repeater, performing failure the location measurement of terminal). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Camp system as taught by Stein, provide the motivation to achieve enhancing determining position of terminal in mobile communication system.

Regarding **claims 2 and 13**, Camp discloses that failure detection is performed using weighted ridge regression techniques (abstract, Fig. 1, and column 2, lines 61 – column 3, lines 6, where teaches the method for comparing between the first range to the

second range and detecting the first range is unequal to the second range the presumed location).

Regarding **claim 4**, Camp discloses that the first ranging source is a satellite system (abstract and Fig. 1) and the second ranging source type is a land based wireless communication network (Fig. 1 and column 5, lines 11 – 64).

Regarding **claims 5 - 9**, Camp does not specifically disclose the limitation “the ranging measurement associated with the first or second ranging source is a PN phase offset measurement, a pilot phase offset measurement, a signal strength measurement of a signal transmitted by the first or second ranging source, and a round trip delay and one way delay between a receiver and the first or second ranging source”. However, Stein discloses the limitation “the ranging measurement associated with the first or second ranging source is a PN phase offset measurement (pages 9, paragraphs 94 – 109 and Fig. 1, 5, where teaches measuring PN offsets associated with first and second sources), a pilot phase offset measurement (pages 10, paragraphs 110 – 113, where measuring pilot power phase offsets associated with first and second sources), a signal strength measurement of a signal transmitted by the first or second ranging source (pages 12, paragraphs 135 – 137, where teaches detecting the received signals are within range of power levels and determining signal strength), and a round trip delay and one way delay between a receiver and the first or second ranging source (pages 13, paragraphs 146 – 147, where teaches determining round trip delay and propagation delay between receiver and base station)”. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Camp system as taught by Stein, provide

the motivation to achieve enhancing location measurement by sources in mobile communication system.

Regarding **claim 10**, Camp discloses that the ranging measurement associated with the first or second ranging source indicates an enhanced observed time difference between a receiver and the first or second ranging source (column 1, lines 17 – 24 and Fig. 1).

Regarding **claims 11 and 14**, Camp and Stein disclose all the limitation, as discussed in claim 1. Furthermore, Camp further discloses that extracting ranging measurements from ranging sources belonging to at least two ranging source types (auxiliary information) (column 3, lines 29 – column 4, lines 67 and Fig. 1, where teaches the auxiliary information necessary for determining location and using location information obtained from receiver or data service to calculate auxiliary information). Camp teaches that selecting ranging measurement from the extracted ranging measurements (column 5, lines 32 – column 6, lines 58 and Fig. 2, where teaches determining range measurement from calculating auxiliary information).

Regarding **claim 12**, Camp discloses that performing failure isolation using the selected ranging measurements (Fig. 1, abstract, and column 2, lines 61 – column 3, lines 6).

Regarding **claim 15**, Camp and Stein disclose all the limitation, as discussed in claims 1 and 11. Furthermore, Camp further discloses that selecting ranging measurements associated with a second ranging source from the extracted ranging measurements (abstract and column 5, lines 32 – column 6, lines 58) if the selected

Art Unit: 2684

ranging measurements associated with the first ranging source is insufficient to perform failure detection or failure isolation (column 6, lines 30 – column 7, lines 16 and Fig. 2, 3).

Regarding **claim 16**, Camp discloses that selecting ranging measurements is based on perceived reliability associated with each of the extracted ranging measurements (column 5, lines 32 – column 6, lines 58 and Fig. 2, 3).

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Valio et al. (US Patent number 6,417,800) discloses Method for Determining Reference Time Error and an Electronic Device.

Vayanos et al. (US Patent number 6,707,420) discloses Determining Location Using a Coarse Position Estimate.

Information regarding...Patent Application Information Retrieval (PAIR) system... at 866-217-9197 (toll-free)."

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6606 (for informal or draft communications, please label
"PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John J. Lee** whose telephone number is **(703) 306-5936**. He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00 pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, **Nay**

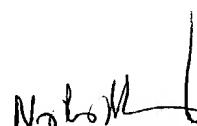
Art Unit: 2684

Aung Maung, can be reached on (703) 308-7745. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

J.L

December 20, 2004

John J Lee


NAY MAUNG
SUPERVISORY PATENT EXAMINER